Next Generation Biofuels

Description: With the demand for fuel increasing globally, researchers around the world are working on making fuel from waste products like plastic bags, wood, and other sources.

Next generation biofuels have been developed to address the growing concerns of the world on the usage of food crops for fuel. Next generation biofuels do not make use of food crops or compete for land with crops. Making low cost biofuels is the entire motive of these next generation biofuel companies. Yeast, algae, bacteria, cellulose, etc., are all being used to produce fuel.

This is a comprehensive research report on the emergence of next generation biofuels.

Next generation biofuels analyzed in this report include the Second Generation Biofuels, Third Generation Biofuels, commonly known as Algal Fuels, and the fourth and yet under development generation of biofuels.

Here's what all the report Next Generation Biofuels contains:

- Explaining what next generation biofuels are, this report undertakes an analysis of the technological developments for next generation biofuels, advantages of next generation biofuels, and the challenges facing the industry.

- An analysis of the use of renewable feedstocks for biofuels and the new emerging market for lignocellulosic biofuels - perhaps the most common type of second generation biofuels being used commercially today.

- The potential of biomass in the world along with the technical considerations for next generation biofuels. This includes an analysis of productions procedures, economical considerations, and environmental considerations as well.

Moving on to the section on second generation biofuels, the report covers the following:

- An introduction to what are second generation biofuels, along with the technologies involved, conversion routes and composition of biomass.

- The impact of the worldwide economic recession on the second generation biofuels market is discussed.

- Feedstocks used for producing second generation biofuels such as bioethanol, black liquor, energy crops, methane, and green waste are analyzed.

- Technologies that are used for the production of second generation biofuels. Technologies analyzed in the report include biochemistry, co-current fixed bed, counter-current fixed bed, entrained flow gasifier, fluidized bed reactor, gasification, pyrolysis, and torrefaction.

- The different types of second generation biofuels are analyzed including BioDME, bioethanol, biobutanol, biohydrogen, biomethanol, wood diesel, amongst others.

- Growth drivers like regulatory support, blending mandates, etc., are analyzed as they support the growth of the market for second generation biofuels.

- An in-depth analysis of lignocellulosic biofuels, lignocellulosic ethanol, synthetic biofuels, and biohydrogen.

- The role of biorefineries in the production of next generation biofuels is also covered.

- The environmental impact of second generation biofuels is analyzed, along with the role of biotechnology in the industry.

- Commercial investment in second generation biofuels and the transition from first generation to second generation is looked at in the report.
Pilot projects for second generation biofuels such as biochemical ethanol and biorefinery projects and thermochemical BTL demonstration projects are analyzed.

A country-wise analysis of second generation markets is included. Countries analyzed include: Brazil, China, India, Mexico, South Africa, and Thailand.

The section on third generation biofuels or algal fuels includes the following:

- An introduction to algal fuels including the kinds of fuels that are produced from algae such as biobutanol, biodiesel, ethanol, straight vegetable oil, and jet fuel.
- How algae can be used as an energy source and the production of biological hydrogen from algae is analyzed.
- Investment in the industry and a market analysis of algal fuel developments in the US and Europe.
- Technical process for fuel production from algae.
- Advantages of fuel production from algae as well as the challenges facing the development of third generation biofuels.
- The production of microalgal biomass and the direct liquefaction of algae for biodiesel production is also analyzed.

Since fourth generation biofuels are presently under development, we focus on providing a snapshot overview of the market for fourth generation biofuels.

We provide in-depth analysis of 90 major players active in the market for next generation biofuels including Abengoa, Verenium, BP Plc., BASF, Shell, Iogen, amongst others.

In conclusion, we analyze the wood ethanol market in Canada in a case study, along with various topics related to next generation biofuels such as the life cycle analysis of biofuels, production of green diesel and jet fuel range alkanes, production of distributed biofuels with fast pyrolysis, as well as an overview of first and second generation biofuels and feedstock and conversion processes.

This report on Next Generation Biofuels is a complete guide for investors as well as first-timers to the industry for getting a strategic and realistic view of the market for Next Generation Biofuels.
2.1 Environmental & Economic Impact
2.2 Impact on Engines
2.3 Impact on Rural Development
2.3.1 Policy Impact
2.3.2 Environmental Impact
2.3.3 Impact of Biofuel Programs
2.3.4 Creation of Employment

3. Energy Diversification - Is it Justified?

4. First Generation Biofuels

5. Liquid Biofuels
5.1 Introduction
5.2 Bioalcohols
5.3 Biodiesel
5.4 Bioethers
5.5 Green Diesel
5.6 Vegetable Oil

6. Solid Biofuels
6.1 Features of Solid Biofuels
6.2 Types of Solid Biofuels
6.2.1 Biomass Pellets
6.2.2 Char
6.2.3 Wood Fuel

7. Gas Biofuels
7.1 Biogas
7.2 Biopropane
7.3 Synthetic Natural Gas
7.4 Syngas

Section 2: Introduction to Next Generation Biofuels

1. Next Generation Biofuels
1.1 What are Next Generation Biofuels?
1.2 Next Generation Technology Development
1.3 Advantages of Next Generation Biofuels
1.4 Challenges facing the Development of Next Generation Biofuels

2. Using Renewable Feedstocks for Biofuels

3. Lignocellulosic Biofuels – New Emerging Market
3.1 Overview
3.2 Biofuels from Lignocellulosic Biomass
3.2.1 Single Molecule Fuels
3.2.2 Mixture of Fuels

4. Technological Considerations for Next Generation Biofuels
4.1 Introduction
4.2 Production Methods
4.3 Lignocellulosic Bioethanol
4.4 Synthetic Biofuels
4.5 Biohydrogen
4.6 Biogas
4.7 Economical Considerations
4.8 Environmental Considerations
4.9 Technological Considerations
4.10 Conclusion

5. Biomass Potential Worldwide
Section 3: Second Generation Biofuels

1. Introduction to Second Generation Biofuels
   1.1 What are Second Generation Biofuels?
   1.2 Technologies Used for Second Generation Biofuels
   1.3 Conversion Routes for Second Generation Biofuels
   1.4 Composition of Biomass
      1.4.1 Cellulose
      1.4.2 Hemicellulose
      1.4.3 Lignin
      1.4.4 Water
      1.4.5 Ash and Other Components
      1.4.6 Validation of Surrogate Molecules

2. Impact of the Economic Recession on Second Generation Biofuels

3. Feedstocks for Second Generation Biofuel
   3.1 Bioethanol
   3.2 Black Liquor
   3.3 Energy Crops
   3.4 Gas Biomatter (Methane)
   3.5 Green Waste

4. Technologies Involved in Production of Second Generation Biofuels
   4.1 Biochemistry
   4.2 Co-Current Fixed Bed
   4.3 Counter-Current Fixed Bed
   4.4 Entrained Flow Gasifier
   4.5 Fluidized Bed Reactor
   4.6 Gasification
   4.7 Pyrolysis
   4.8 Torrefaction

5. Types of Second Generation Biofuels
   5.1 BioDME
   5.2 Bioethanol & Biobutanol
   5.3 Biohydrogen
   5.4 Biomethanol
   5.5 DMF
   5.6 Fischer-Tropsch Fuels
   5.7 Hydro Thermal Upgrading (HTU)
   5.8 Mixed Alcohols
   5.9 Wood Diesel

6. Growth Drivers for Second Generation Biofuels
   6.1 Overview
   6.2 Regulatory Support
   6.3 Blending Mandates
   6.4 Trade Opportunities for Developing Countries
   6.5 Government Funding
   6.6 Foreign Investment
   6.7 Trade in Feedstock
   6.8 Scientific Cooperation and Research & Development

7. Analysis of Lignocellulosic Biofuels
   7.1 What are Lignocellulosic Biofuels?
   7.2 Potential of Lignocellulosic Biofuels
   7.3 Is it Feasible to Produce Fuels from Lignocellulosic Biomass?
   7.4 Types of Biofuels Produced from Lignocellulosic Biomass
      7.4.1 Single Molecule Fuels or Additives
      7.4.2 Mixture of Compounds – Classical Fuels
   7.5 Structure of Lignocellulosic Biomass
   7.6 Conversion Process of Biomass to Fuel
7.7 Producing Biofuels from Catalytic Processing of Biomass
7.8 Requirement of Next Generation Biorefineries for Producing Liquid Fuels
7.9 Feedstocks for Lignocellulosic Biofuels

8. Analysis of Lignocellulosic Ethanol
8.1 Overview
8.2 Importance of Size Reduction
8.3 Purpose of Pre-Treatment
8.4 Purpose of Hydrolysis
8.5 Fermentation
8.6 Distillation
8.7 Process Integration
8.8 Issues and Challenges

9. Analysis of Synthetic Biofuels
9.1 Overview
9.2 Importance of Size Reduction
9.3 Gasification
9.4 Components of Product Gas
9.5 Necessity of Gas Cleaning
9.6 Gas Upgrading
9.7 Pathways for Fuel Synthesis
9.7.1 Fischer-Tropsch (FT) Synthesis
9.7.2 Bio-SNG Production
9.7.3 Production of Ethanol and Higher Alcohols via Gasification

10. Analysis of Biohydrogen
10.1 Overview
10.2 Production Technologies
10.3 Thermochemical Gasification with Water Gas Shift
10.4 Fast Pyrolysis with Reforming of Carbohydrate Fraction of Bio-Oil
10.5 Feasibility of Direct Solar Gasification
10.6 Other Gasification Process
10.7 Hydrogen Production from Biomass Derived Syngas Conversion
10.8 Supercritical Conversion of Biomass
10.9 Microbial Conversion of Biomass
10.10 Comparison of Different Process Routes for Hydrogen Production

11. Role of Biorefineries
11.1 What is a Biorefinery?
11.2 Realizing the Potential of a Biorefinery
11.3 Emergence of Advanced Biorefineries
11.4 Types of Advanced Biorefineries

12. Sustaining Second Generation Biofuels in Developing Countries
12.1 Overview
12.2 Economic Impact of Second Generation Biofuels
12.2.1 Second Generation Biofuel Plants are Capital Intensive
12.2.2 Supply Costs of Biomass
12.2.3 Production Costs for Biofuels
12.3 Impact on the National Budget
12.3.1 Foreign Currency Savings
12.3.2 Requirement for Subsidies
12.4 Creating a Legal Political Framework
12.5 Securing Biomass Supplies
12.6 Access to Energy Services
12.7 Issue of Food Security

13.1 Overview
13.2 Impact of Second Generation Biofuels on Ecosystems, Carbon Cycle and Global Climate
13.3 GHG Balances
13.4 Impact on Soil
5.3 Corporate Developments

6. Using Algae for Transport & Power Generation

7. Fuel Production from Algae
   7.1 Overview
   7.2 Basics of Fuel Production
   7.3 Production Technologies & Strategies
      7.3.1 Overview
      7.3.2 Infrastructure for Production
   7.4 Products & Co-products
      7.4.1 Biodiesel
      7.4.2 Ethanol from Algal Biomass
      7.4.3 Hydrocarbons
      7.4.4 Mixed Alcohols
      7.4.5 Co-products
   7.5 Improving the Yield

8. Advantages of Fuel Production from Algae

9. Challenges Facing Third Generation Biofuels

10. Technology behind Third Generation Biofuels
  10.1 Biological Concepts
  10.2 Algae Production
  10.3 Fuel Production Options
  10.4 Biodiesel Production from Algae
  10.5 Ethanol Production from Algae
  10.6 Hydrocarbons Production from Algae
  10.7 Extraction of Algal Oil
  10.8 Types of Biofuel Produced

11. Producing Microalgal Biomass

12. Direct Liquefaction of Algae for Biodiesel Production

Section 6: Fourth Generation Biofuels

1. Fourth Generation Biofuels

Section 7: Analysis of Major Players in the Industry

1. A2BE Carbon Capture
2. Abengoa Bioenergy
3. agri.capital GmbH
4. BD AgroRenewables GmbH & Co. KG
5. Air Liquide
6. Algae Floating Systems Inc
7. AlgaeLink, N.V.
8. Algaewheel
9. Algenol Biofuels
10. AlgoDyne Ethanol Energy Corporation
11. Amyris Biotech
12. Andritz AG
13. Archer Daniels Midland Co.
14. Aquaflow Bionomic Corporation
15. Aurora Biofuels
16. BASF
17. BEST Energies
18. Bio Fuel Systems
21. Blue Marble Energy
22. BlueFire Ethanol
23. BP Plc
24. BRI Energy
25. Broin Companies/POET
26. Butamax Advanced Biofuels LLC
27. Cargill Inc
28. Cellana
29. Chemrec
30. Chippewa Valley Ethanol Company LLC
31. Codexis, Inc
32. Choren
33. Cobalt Technologies
34. Colusa Biomass Energy Corporation
35. Coskata
36. D1 Oils Plc
37. Dao Energy, LLC
38. Diversified Energy Corporation
39. DuPont Danisco
40. Dyadic International, Inc
41. Ecofin LLC/Alltech Inc
42. Enerkem
43. EnviTec Biogas GmbH
44. Flambeau River Biofuels LLC
45. Frontier Renewable Resources
46. Fuel Bio Holdings, LLC
47. Gevo
48. Global Green Solutions
49. GreenerBioEnergy Corporation
50. GreenFuel Technologies
51. Greenlane Biogas
52. GS CleanTech
53. Gushan Environmental Energy
54. Haldor-Topsøe AS
55. ICM Incorporated
56. Imperium Renewables
57. Infinifuel
58. International Energy, Inc
59. Inventure Chemical
60. Iogen Corporation
61. Lignol
62. Live Fuels Inc
63. LS9, Inc
64. Lurgi AG
65. Mascoma Corporation
66. NatureWorks, LLC
67. Nedalco
68. NESTE Oil Oyj
69. Novozymes
70. Pacific Ethanol
71. Pan Gen Global
72. PetroAlgae
73. Petrobras
74. PetroSun
75. QTeros
76. Range Fuels
77. Repotec Renewable Power Technologies Umwelttechnik GmbH
78. Sapphire Energy
79. Seambiotic
80. SEKAB
81. Shell
82. Solazyrne
83. Solena Group
84. Solix Biofuels
Section 8: Conclusion

1. Case Study: Wood Ethanol in Canada
   1.1 Introduction
   1.2 Technical Developments
   1.3 Why Produce Ethanol?
   1.4 Wood Ethanol Production Technologies
      1.4.1 Fermentation
      1.4.2 Gasification
   1.5 Demonstration Projects in Canada
   1.6 Sources of Wood for Wood Ethanol Production
      1.6.1 Fast Growing Plantations
      1.6.2 Industrial Wood Waste
      1.6.3 Forest Residue
   1.7 Wood-based Ethanol Markets
   1.8 Regulatory Incentives
   1.9 Research & Development
   1.10 Conclusion

2. Producing Biofuels with High-Efficiency, Small-Scale Reactors

3. Producing Distributed Biofuels with Fast Pyrolysis

4. Deriving Green Diesel & Jet Fuel Range Alkanes

5. Life Cycle Assessment of Biofuels

6. Overview of Biofuels of the First and Second Generation and Related Feedstock and Conversion Processes

7. Appendix

8. Glossary

List of Figures:
Figure 1: Substitutability of Biofuels with Common Petroleum-derived Fuels
Figure 2: Substitutability of Biofuels for Clean Fossil Fuels used for Cooking
Figure 3: Global Biofuel Production (in millions of gallons), 2005-2017
Figure 4: Biomass in Total Primary Energy Supply 2010 in Selected Countries
Figure 5: Demand for Biofuels and Land Requirements in 2050 in the IEA Blue Map Scenario
Figure 6: Biofuels CO2 Profile Saving by Feedstock
Figure 7: Overview on Production Pathways
Figure 8: Biofuel Production Costs
Figure 9: Total Driving Costs – Private Cars (WTW)
Figure 10: Technology Versus Economic Aspects
Figure 11: Economic Versus Environmental Aspects
Figure 12: Literature Review of Global Bioenergy Potentials for 2050
Figure 13: Complete Molecular Structure of Biomass Containing all Three Main Components: Cellulose is shown in Orange, the Hemicellulose in Blue, and the Lignin in Green
Figure 14: Highlighted Structure of Cellulose
Figure 15: Highlighted Structure of Hemicellulose
Figure 16: Highlighted Structure of Lignin
List of Tables:
Table 1: Classification of Biofuels
Table 2: Biomass and Biofuels Consumption in ETP 2008 Blue Map Scenario
Table 3: First Generation Biofuels
Table 4: Potential U. S. Biomass Resources
Table 5: Comparison of Technological Aspects
Table 6: Classification of Second-Generation Biofuels from Lignocellulosic Feedstocks
Table 7: Chemical Composition of Biomass Feedstock: Feedstock Composition and Property Database
Table 8: Ratio of Methoxy to Phenylpropanoid Group by Feedstock
Table 9: Calculated versus Published Higher Heating Value by Feedstock
Table 10: Biofuel Support Policies in the Studied Countries
Table 11: Overview on Second-Generation Biofuel Projects in Emerging and Developing Countries
Table 12: Potential of US Biomass Resources
Table 13: Cellulose, Hemicellulose, and Lignin Contents in Common Agricultural Residues and Wastes
Table 14: Chemical Pre-Treatment of Lignocellulose
Table 15: Physical Pre-treatment Methods
Table 16: Biological Pre-treatment Methods
Table 17: Merits and Demerits of Different Processes of Biomass Conversion to Hydrogen
Table 18: Some Biomass Feedstock used for Hydrogen-Production
Table 19: Capital Investment Costs for Various Pretreatments Calculated from a Number of Bio-Chemical Ethanol Plants in US
Table 20: IEA 2nd-Generation Biofuel Cost Assumptions for 2010, 2030 and 2050
Table 21: US DOE Funding Support for Commercial 2nd Generation Plant Capacity, Planned or Under Construction
Table 22: Assessment of Residues from Forestry and Agriculture
Table 23: Potential Second Generation Biofuel Production and Number of Plants
Table 24: Theoretical Second Generation Biofuel Production Costs in Brazil
Table 25: Assessment of Residues from Forestry and Agriculture
Table 26: Potential Second Generation Biofuel Production and Number of Plants
Table 27: Theoretical Second Generation Biofuel Production Costs in China
Table 28: Assessment of Residues from Forestry and Agriculture
Table 29: Potential Second Generation Biofuel Production and Number of Plants
Table 30: Theoretical Second Generation Biofuel Production Costs in India
Table 31: Assessment of Residues from Forestry and Agriculture
Table 32: Potential Second Generation Biofuel Production and Number of Plants
Table 33: Theoretical Second Generation Production Costs in Mexico
Table 34: Assessment of Residues from Forestry and Agriculture
Table 35: Potential Second Generation Biofuel Production and Number of Plants
Table 36: Theoretical Second Generation Biofuel Production Costs in South Africa
Table 37: Assessment of Residues from Agriculture
Table 38: Potential Second Generation Biofuel Production and Number of Plants
Table 39: Theoretical Second Generation Biofuel Production Costs in Thailand
Table 40: Comparison of Biological and Chemical Catalysts for Making Fuels from Lignocellulosic Biomass

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